

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

CERTIFICATE OF ANALYSIS

Client: ERM-New England Laboratory Job Number: L0407966
Address: 399 Boylston Street
6th Floor
Boston, MA 02116 Date Received: 21-JUL-2004
Attn: Jeremy Picard Date Reported: 28-JUL-2004
Project Number: 13606.03.02 Delivery Method: Alpha
Site: RAYTHEON

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

- A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set? YES
- B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines? YES
- C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"? YES
- D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3? NA

A response to questions E and F is required for "Presumptive Certainty" status

- E. Were all QC performance standards and recommendations for the specified method(s) achieved? NO
- F. Were results for all analyte-list compounds/elements for the specified method(s) reported? NO

Any answers of NO to the above questions are addressed in the case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Scott McLean
This document electronically signed

ALPHA ANALYTICAL LABORATORIES

Laboratory Job Number: L0407966
Date Reported: 28-JUL-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0407966-01	MW-TP3	WAYLAND, MA
L0407966-02	MW-263M	WAYLAND, MA
L0407966-03	MW-263S	WAYLAND, MA
L0407966-04	MW-268B	WAYLAND, MA
L0407966-05	MW-268S	WAYLAND, MA
L0407966-06	MW-268M	WAYLAND, MA
L0407966-07	MW-268D	WAYLAND, MA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0407966

MCP Related Narratives

Report Submission

In reference to question F, at the client's request, the samples were analyzed only for the compounds specified on the chain of custody.

Volatile Organics

L0407966-06 has elevated limits of detection due to the 100x dilution required by the elevated concentrations of target compounds in the sample.

In reference to question E:

The LCS/LCSD % recoveries for Bromomethane, a difficult analyte, is below the acceptance criteria for the method.

The LCSD % recovery for 1,4-Dioxane, a difficult analyte, is above the acceptance criteria for the method.

Metals

In reference to question E:

The MS % recovery for Fe is invalid because the sample concentration is greater than four times the spike amount added. The MS/MSD RPD is above criteria due to this invalid spike.

Manganese is present in the method blank, however, all associated sample results are greater than 10x the amount detected in the blank.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0407966-01
 MW-TP3

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	0727 19:17 RY		
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	107.	%		70-130			
Toluene-d8	98.0	%		70-130			
4-Bromofluorobenzene	99.0	%		70-130			
Dibromofluoromethane	105.	%		70-130			

Comments: Complete list of References and Glossary of Terms found in Addendum I

**ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS**

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0407966-02	Date Collected: 21-JUL-2004 09:20
MW-263M	Date Received : 21-JUL-2004
Sample Matrix: WATER	Date Reported : 28-JUL-2004
Condition of Sample: Satisfactory	Field Prep: None
Number & Type of Containers: 2-Vial	

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Volatile Organics by MCP 8260B				60 8260B	0727 19:52 RY	
Methylene chloride	ND	ug/l	5.0			
1,1-Dichloroethane	ND	ug/l	0.75			
Chloroform	ND	ug/l	0.75			
Carbon tetrachloride	ND	ug/l	0.50			
1,2-Dichloropropane	ND	ug/l	1.8			
Dibromochloromethane	ND	ug/l	0.50			
1,1,2-Trichloroethane	ND	ug/l	0.75			
Tetrachloroethene	ND	ug/l	0.50			
Chlorobenzene	ND	ug/l	0.50			
1,2-Dichloroethane	ND	ug/l	0.50			
1,1,1-Trichloroethane	ND	ug/l	0.50			
Bromodichloromethane	ND	ug/l	0.50			
trans-1,3-Dichloropropene	ND	ug/l	0.50			
cis-1,3-Dichloropropene	ND	ug/l	0.50			
Bromoform	ND	ug/l	2.0			
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50			
Chloromethane	ND	ug/l	2.5			
Vinyl chloride	ND	ug/l	1.0			
Chloroethane	ND	ug/l	1.0			
1,1-Dichloroethene	ND	ug/l	0.50			
trans-1,2-Dichloroethene	ND	ug/l	0.75			
Trichloroethene	0.61	ug/l	0.50			
1,2-Dichlorobenzene	ND	ug/l	2.5			
1,3-Dichlorobenzene	ND	ug/l	2.5			
1,4-Dichlorobenzene	ND	ug/l	2.5			
cis-1,2-Dichloroethene	ND	ug/l	0.50			
Dichlorodifluoromethane	ND	ug/l	5.0			
1,2-Dibromoethane	ND	ug/l	2.0			
1,3-Dichloropropane	ND	ug/l	2.5			
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50			
o-Chlorotoluene	ND	ug/l	2.5			
p-Chlorotoluene	ND	ug/l	2.5			
Hexachlorobutadiene	ND	ug/l	1.0			
1,2,4-Trichlorobenzene	ND	ug/l	2.5			

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0407966-02
 MW-263M

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	0727 19:52 RY		
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	110.	%		70-130			
Toluene-d8	100.	%		70-130			
4-Bromofluorobenzene	103.	%		70-130			
Dibromofluoromethane	106.	%		70-130			

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0407966-03	Date Collected: 21-JUL-2004 10:10
MW-263S	Date Received : 21-JUL-2004
Sample Matrix: WATER	Date Reported : 28-JUL-2004
Condition of Sample: Satisfactory	Field Prep: None
Number & Type of Containers: 2-Vial	

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Volatile Organics by MCP 8260B				60 8260B	0727 20:28	RY
Methylene chloride	ND	ug/l	5.0			
1,1-Dichloroethane	ND	ug/l	0.75			
Chloroform	ND	ug/l	0.75			
Carbon tetrachloride	ND	ug/l	0.50			
1,2-Dichloropropane	ND	ug/l	1.8			
Dibromochloromethane	ND	ug/l	0.50			
1,1,2-Trichloroethane	ND	ug/l	0.75			
Tetrachloroethene	0.60	ug/l	0.50			
Chlorobenzene	ND	ug/l	0.50			
1,2-Dichloroethane	ND	ug/l	0.50			
1,1,1-Trichloroethane	ND	ug/l	0.50			
Bromodichloromethane	ND	ug/l	0.50			
trans-1,3-Dichloropropene	ND	ug/l	0.50			
cis-1,3-Dichloropropene	ND	ug/l	0.50			
Bromoform	ND	ug/l	2.0			
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50			
Chloromethane	ND	ug/l	2.5			
Vinyl chloride	ND	ug/l	1.0			
Chloroethane	ND	ug/l	1.0			
1,1-Dichloroethene	ND	ug/l	0.50			
trans-1,2-Dichloroethene	ND	ug/l	0.75			
Trichloroethene	ND	ug/l	0.50			
1,2-Dichlorobenzene	ND	ug/l	2.5			
1,3-Dichlorobenzene	ND	ug/l	2.5			
1,4-Dichlorobenzene	ND	ug/l	2.5			
cis-1,2-Dichloroethene	ND	ug/l	0.50			
Dichlorodifluoromethane	ND	ug/l	5.0			
1,2-Dibromoethane	ND	ug/l	2.0			
1,3-Dichloropropane	ND	ug/l	2.5			
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50			
o-Chlorotoluene	ND	ug/l	2.5			
p-Chlorotoluene	ND	ug/l	2.5			
Hexachlorobutadiene	ND	ug/l	1.0			
1,2,4-Trichlorobenzene	ND	ug/l	2.5			

Comments: Complete list of References and Glossary of Terms found in Addendum I

**ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0407966-03
MW-263S

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	0727 20:28		RY
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	110.	%		70-130			
Toluene-d8	99.0	%		70-130			
4-Bromofluorobenzene	100.	%		70-130			
Dibromofluoromethane	102.	%		70-130			

Comments: Complete list of References and Glossary of Terms found in Addendum I

**ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS**

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0407966-04	Date Collected: 21-JUL-2004 11:55
MW-268B	Date Received : 21-JUL-2004
Sample Matrix: WATER	Date Reported : 28-JUL-2004
Condition of Sample: Satisfactory	Field Prep: Field Filtered
Number & Type of Containers: 1-Plastic,2-Vial	

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Dissolved Metals by MCP 6000/7000 series						
Arsenic, Dissolved	0.0072	mg/l	0.0010	54 6020A	0722 14:40 0727 10:09	RW
Volatile Organics by MCP 8260B						
Methylene chloride	ND	ug/l	5.0	60 8260B	0727 21:03	RY
1,1-Dichloroethane	ND	ug/l	0.75			
Chloroform	ND	ug/l	0.75			
Carbon tetrachloride	ND	ug/l	0.50			
1,2-Dichloropropane	ND	ug/l	1.8			
Dibromochloromethane	ND	ug/l	0.50			
1,1,2-Trichloroethane	ND	ug/l	0.75			
Tetrachloroethene	ND	ug/l	0.50			
Chlorobenzene	ND	ug/l	0.50			
1,2-Dichloroethane	ND	ug/l	0.50			
1,1,1-Trichloroethane	ND	ug/l	0.50			
Bromodichloromethane	ND	ug/l	0.50			
trans-1,3-Dichloropropene	ND	ug/l	0.50			
cis-1,3-Dichloropropene	ND	ug/l	0.50			
Bromoform	ND	ug/l	2.0			
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50			
Chloromethane	ND	ug/l	2.5			
Vinyl chloride	ND	ug/l	1.0			
Chloroethane	ND	ug/l	1.0			
1,1-Dichloroethene	ND	ug/l	0.50			
trans-1,2-Dichloroethene	ND	ug/l	0.75			
Trichloroethene	0.63	ug/l	0.50			
1,2-Dichlorobenzene	ND	ug/l	2.5			
1,3-Dichlorobenzene	ND	ug/l	2.5			
1,4-Dichlorobenzene	ND	ug/l	2.5			
cis-1,2-Dichloroethene	ND	ug/l	0.50			
Dichlorodifluoromethane	ND	ug/l	5.0			
1,2-Dibromoethane	ND	ug/l	2.0			
1,3-Dichloropropane	ND	ug/l	2.5			
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50			
o-Chlorotoluene	ND	ug/l	2.5			
p-Chlorotoluene	ND	ug/l	2.5			
Hexachlorobutadiene	ND	ug/l	1.0			
1,2,4-Trichlorobenzene	ND	ug/l	2.5			

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0407966-04
 MW-268B

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	0727 21:03		RY
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	112.	%		70-130			
Toluene-d8	99.0	%		70-130			
4-Bromofluorobenzene	100.	%		70-130			
Dibromofluoromethane	106.	%		70-130			

Comments: Complete list of References and Glossary of Terms found in Addendum I

**ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS**

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0407966-05	Date Collected: 21-JUL-2004 13:50
MW-268S	Date Received : 21-JUL-2004
Sample Matrix: WATER	Date Reported : 28-JUL-2004
Condition of Sample: Satisfactory	Field Prep: Field Filtered
Number & Type of Containers: 1-Plastic,2-Vial	

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Dissolved Metals by MCP 6000/7000 series						
Arsenic, Dissolved	0.0042	mg/l	0.0010	54 6020A	0722 14:40 0727 10:31	RW
				60 8260B 0727 21:39 RY		
Volatile Organics by MCP 8260B						
Methylene chloride	ND	ug/l	5.0			
1,1-Dichloroethane	ND	ug/l	0.75			
Chloroform	ND	ug/l	0.75			
Carbon tetrachloride	ND	ug/l	0.50			
1,2-Dichloropropane	ND	ug/l	1.8			
Dibromochloromethane	ND	ug/l	0.50			
1,1,2-Trichloroethane	ND	ug/l	0.75			
Tetrachloroethene	ND	ug/l	0.50			
Chlorobenzene	ND	ug/l	0.50			
1,2-Dichloroethane	ND	ug/l	0.50			
1,1,1-Trichloroethane	ND	ug/l	0.50			
Bromodichloromethane	ND	ug/l	0.50			
trans-1,3-Dichloropropene	ND	ug/l	0.50			
cis-1,3-Dichloropropene	ND	ug/l	0.50			
Bromoform	ND	ug/l	2.0			
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50			
Chloromethane	ND	ug/l	2.5			
Vinyl chloride	ND	ug/l	1.0			
Chloroethane	ND	ug/l	1.0			
1,1-Dichloroethene	ND	ug/l	0.50			
trans-1,2-Dichloroethene	ND	ug/l	0.75			
Trichloroethene	ND	ug/l	0.50			
1,2-Dichlorobenzene	ND	ug/l	2.5			
1,3-Dichlorobenzene	ND	ug/l	2.5			
1,4-Dichlorobenzene	ND	ug/l	2.5			
cis-1,2-Dichloroethene	ND	ug/l	0.50			
Dichlorodifluoromethane	ND	ug/l	5.0			
1,2-Dibromoethane	ND	ug/l	2.0			
1,3-Dichloropropane	ND	ug/l	2.5			
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50			
o-Chlorotoluene	ND	ug/l	2.5			
p-Chlorotoluene	ND	ug/l	2.5			
Hexachlorobutadiene	ND	ug/l	1.0			
1,2,4-Trichlorobenzene	ND	ug/l	2.5			

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0407966-05
MW-268S

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	0727	21:39	RY
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	111.	%		70-130			
Toluene-d8	98.0	%		70-130			
4-Bromofluorobenzene	101.	%		70-130			
Dibromofluoromethane	107.	%		70-130			

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0407966-06 Date Collected: 21-JUL-2004 14:50
MW-268M Date Received: 21-JUL-2004
Sample Matrix: WATER Date Reported: 28-JUL-2004
Condition of Sample: Satisfactory Field Prep: Field Filtered
Number & Type of Containers: 3-Plastic,2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Alkalinity, Total	81.	mg CaCO ₃ /L	2.0	30 2320B	0727	13:17	JT
Chloride	30.	mg/l	1.0	1 9251	0726	23:32	DD
Nitrogen, Nitrate	ND	mg/l	0.10	30 4500NO3-F	0721	23:07	DD
Sulfate	48.	mg/l	20.	1 9038	0727 10:00	0727 10:00	ST
Dissolved Metals by MCP 6000/7000 series							
Arsenic, Dissolved	0.0025	mg/l	0.0010	54 6020A	0722 14:40	0723 18:55	RW
Iron, Dissolved	26.5	mg/l	0.500	54 6020A	0722 14:40	0723 18:55	RW
Manganese, Dissolved	0.5685	mg/l	0.0005	54 6020A	0722 14:40	0723 18:55	RW
Volatile Organics by MCP 8260B							
Methylene chloride	ND	ug/l	500	60 8260B	0727	22:14	RY
1,1-Dichloroethane	ND	ug/l	75.				
Chloroform	ND	ug/l	75.				
Carbon tetrachloride	ND	ug/l	50.				
1,2-Dichloropropane	ND	ug/l	180				
Dibromochloromethane	ND	ug/l	50.				
1,1,2-Trichloroethane	ND	ug/l	75.				
Tetrachloroethene	57.	ug/l	50.				
Chlorobenzene	ND	ug/l	50.				
1,2-Dichloroethane	ND	ug/l	50.				
1,1,1-Trichloroethane	ND	ug/l	50.				
Bromodichloromethane	ND	ug/l	50.				
trans-1,3-Dichloropropene	ND	ug/l	50.				
cis-1,3-Dichloropropene	ND	ug/l	50.				
Bromoform	ND	ug/l	200				
1,1,2,2-Tetrachloroethane	ND	ug/l	50.				
Chloromethane	ND	ug/l	250				
Vinyl chloride	370	ug/l	100				
Chloroethane	ND	ug/l	100				
1,1-Dichloroethene	ND	ug/l	50.				
trans-1,2-Dichloroethene	ND	ug/l	75.				
Trichloroethene	2700	ug/l	50.				
1,2-Dichlorobenzene	ND	ug/l	250				
1,3-Dichlorobenzene	ND	ug/l	250				

Comments: Complete list of References and Glossary of Terms found in Addendum I

**ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0407966-06
MW-268M

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	0727 22:14		RY
1,4-Dichlorobenzene	ND	ug/l	250				
cis-1,2-Dichloroethene	6700	ug/l	50.				
Dichlorodifluoromethane	ND	ug/l	500				
1,2-Dibromoethane	ND	ug/l	200				
1,3-Dichloropropane	ND	ug/l	250				
1,1,1,2-Tetrachloroethane	ND	ug/l	50.				
o-Chlorotoluene	ND	ug/l	250				
p-Chlorotoluene	ND	ug/l	250				
Hexachlorobutadiene	ND	ug/l	100				
1,2,4-Trichlorobenzene	ND	ug/l	250				
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	112.	%		70-130			
Toluene-d8	99.0	%		70-130			
4-Bromofluorobenzene	103.	%		70-130			
Dibromofluoromethane	107.	%		70-130			

Comments: Complete list of References and Glossary of Terms found in Addendum I

**ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS**

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0407966-07 Date Collected: 21-JUL-2004 16:05
 MW-268D Date Received : 21-JUL-2004
 Sample Matrix: WATER Date Reported : 28-JUL-2004
 Condition of Sample: Satisfactory Field Prep: Field Filtered
 Number & Type of Containers: 1-Plastic,2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Dissolved Metals by MCP 6000/7000 series						
Arsenic, Dissolved	0.0074	mg/l	0.0010	54 6020A	0722 14:40 0723 19:00	RW
Volatile Organics by MCP 8260B						
Methylene chloride	ND	ug/l	5.0	60 8260B	0727 22:51	RY
1,1-Dichloroethane	ND	ug/l	0.75			
Chloroform	ND	ug/l	0.75			
Carbon tetrachloride	ND	ug/l	0.50			
1,2-Dichloropropane	ND	ug/l	1.8			
Dibromochloromethane	ND	ug/l	0.50			
1,1,2-Trichloroethane	ND	ug/l	0.75			
Tetrachloroethene	ND	ug/l	0.50			
Chlorobenzene	ND	ug/l	0.50			
1,2-Dichloroethane	ND	ug/l	0.50			
1,1,1-Trichloroethane	ND	ug/l	0.50			
Bromodichloromethane	ND	ug/l	0.50			
trans-1,3-Dichloropropene	ND	ug/l	0.50			
cis-1,3-Dichloropropene	ND	ug/l	0.50			
Bromoform	ND	ug/l	2.0			
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50			
Chloromethane	ND	ug/l	2.5			
Vinyl chloride	1.1	ug/l	1.0			
Chloroethane	ND	ug/l	1.0			
1,1-Dichloroethene	ND	ug/l	0.50			
trans-1,2-Dichloroethene	ND	ug/l	0.75			
Trichloroethene	5.5	ug/l	0.50			
1,2-Dichlorobenzene	ND	ug/l	2.5			
1,3-Dichlorobenzene	ND	ug/l	2.5			
1,4-Dichlorobenzene	ND	ug/l	2.5			
cis-1,2-Dichloroethene	9.4	ug/l	0.50			
Dichlorodifluoromethane	ND	ug/l	5.0			
1,2-Dibromoethane	ND	ug/l	2.0			
1,3-Dichloropropane	ND	ug/l	2.5			
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50			
o-Chlorotoluene	ND	ug/l	2.5			
p-Chlorotoluene	ND	ug/l	2.5			
Hexachlorobutadiene	ND	ug/l	1.0			
1,2,4-Trichlorobenzene	ND	ug/l	2.5			

Comments: Complete list of References and Glossary of Terms found in Addendum I

**ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0407966-07
MW-268D

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	0727 22:51		RY
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	117.	%		70-130			
Toluene-d8	98.0	%		70-130			
4-Bromofluorobenzene	102.	%		70-130			
Dibromofluoromethane	108.	%		70-130			

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
 QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0407966

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Alkalinity, Total for sample(s) 06 (L0407942-01, WG176806)					
Alkalinity, Total	100	100	mg CaCO3/L	0	4
Chloride for sample(s) 06 (L0407964-01, WG176724)					
Chloride	63.	62.	mg/l	2	7
Nitrogen, Nitrate for sample(s) 06 (L0407964-01, WG176340)					
Nitrogen, Nitrate	ND	ND	mg/l	NC	6
Sulfate for sample(s) 06 (L0407913-02, WG176788)					
Sulfate	ND	ND	mg/l	NC	14

ALPHA ANALYTICAL LABORATORIES
 QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0407966

Parameter	% Recovery	QC Criteria
Alkalinity, Total LCS for sample(s) 06 (WG176806)		
Alkalinity, Total	106	85-115
Chloride LCS for sample(s) 06 (WG176724)		
Chloride	97	84-110
Nitrogen, Nitrate LCS for sample(s) 06 (WG176340)		
Nitrogen, Nitrate	98	88-105
Sulfate LCS for sample(s) 06 (WG176788)		
Sulfate	100	84-108
Alkalinity, Total SPIKE for sample(s) 06 (L0407942-02, WG176806)		
Alkalinity, Total	96	86-116
Chloride SPIKE for sample(s) 06 (L0407964-01, WG176724)		
Chloride	80	58-140
Nitrogen, Nitrate SPIKE for sample(s) 06 (L0407964-01, WG176340)		
Nitrogen, Nitrate	100	83-120
Sulfate SPIKE for sample(s) 06 (L0407913-01, WG176788)		
Sulfate	120	55-147

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0407966

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Dissolved Metals by MCP 6000/7000 series for sample(s) 04-07 (WG176441-2, WG176441)					
Arsenic, Dissolved	88	91	3		75-125
Iron, Dissolved	100	100	0		75-125
Manganese, Dissolved	99	101	2		75-125
Volatile Organics by MCP 8260B for sample(s) 01-07 (WG176875-1, WG176875)					
Methylene chloride	93	85	9	25	70-130
1,1-Dichloroethane	92	86	7	25	70-130
Chloroform	88	84	5	25	70-130
Carbon tetrachloride	90	84	7	25	70-130
1,2-Dichloropropane	90	87	3	25	70-130
Dibromochloromethane	89	89	0	25	70-130
1,1,2-Trichloroethane	93	93	0	25	70-130
Tetrachloroethene	94	88	7	25	70-130
Chlorobenzene	95	93	2	25	70-130
Trichlorofluoromethane	100	94	6	25	70-130
1,2-Dichloroethane	93	91	2	25	70-130
1,1,1-Trichloroethane	95	87	9	25	70-130
Bromodichloromethane	94	90	4	25	70-130
trans-1,3-Dichloropropene	84	85	1	25	70-130
cis-1,3-Dichloropropene	89	87	2	25	70-130
1,1-Dichloropropene	85	80	6	25	70-130
Bromoform	93	99	6	50	70-130
1,1,2,2-Tetrachloroethane	89	96	8	25	70-130
Benzene	87	83	5	25	70-130
Toluene	90	86	5	25	70-130
Ethylbenzene	95	91	4	25	70-130
Chloromethane	116	113	3	50	70-130
Bromomethane	60	61	2	50	70-130
Vinyl chloride	94	88	7	25	70-130
Chloroethane	97	88	10	25	70-130
1,1-Dichloroethene	84	77	9	25	70-130
trans-1,2-Dichloroethene	84	81	4	25	70-130
Trichloroethene	92	86	7	25	70-130
1,2-Dichlorobenzene	92	93	1	25	70-130
1,3-Dichlorobenzene	93	92	1	25	70-130
1,4-Dichlorobenzene	93	92	1	25	70-130
Methyl tert butyl ether	102	104	2	25	70-130
p/m-Xylene	97	92	5	25	70-130
o-Xylene	94	91	3	25	70-130
cis-1,2-Dichloroethene	92	83	10	25	70-130
Dibromomethane	92	94	2	25	70-130
1,2,3-Trichloropropane	90	94	4	25	70-130
Styrene	95	93	2	25	70-130
Dichlorodifluoromethane	121	114	6	50	70-130
Acetone	120	120	0	50	70-130
Carbon disulfide	81	76	6	25	70-130
2-Butanone	108	113	5	50	70-130
4-Methyl-2-pentanone	96	96	0	50	70-130

ALPHA ANALYTICAL LABORATORIES
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0407966

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 01-07 (WG176875-1, WG176875)					
2-Hexanone	116	117	1	50	70-130
Bromochloromethane	95	94	1	25	70-130
Tetrahydrofuran	117	118	1	25	70-130
2,2-Dichloropropane	95	85	11	25	70-130
1,2-Dibromoethane	90	90	0	25	70-130
1,3-Dichloropropane	91	90	1	25	70-130
1,1,1,2-Tetrachloroethane	97	94	3	25	70-130
Bromobenzene	92	93	1	25	70-130
n-Butylbenzene	80	71	12	25	70-130
sec-Butylbenzene	88	81	8	25	70-130
tert-Butylbenzene	89	84	6	25	70-130
o-Chlorotoluene	96	94	2	25	70-130
p-Chlorotoluene	95	92	3	25	70-130
1,2-Dibromo-3-chloropropane	88	92	4	50	70-130
Hexachlorobutadiene	89	78	13	25	70-130
Isopropylbenzene	94	88	7	25	70-130
p-Isopropyltoluene	84	76	10	25	70-130
Naphthalene	77	79	3	25	70-130
n-Propylbenzene	94	90	4	25	70-130
1,2,3-Trichlorobenzene	79	77	3	25	70-130
1,2,4-Trichlorobenzene	78	75	4	25	70-130
1,3,5-Trimethylbenzene	89	84	6	25	70-130
1,2,4-Trimethylbenzene	89	85	5	25	70-130
Ethyl ether	96	94	2	25	70-130
Isopropyl Ether	100	98	2	25	70-130
Ethyl-Tert-Butyl-Ether	97	97	0	25	70-130
Tertiary-Amyl Methyl Ether	95	96	1	25	70-130
1,4-Dioxane	128	133	4	50	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	103	104	1		70-130
Toluene-d8	98	100	2		70-130
4-Bromofluorobenzene	95	100	5		70-130
Dibromofluoromethane	104	104	0		70-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH MS/MSD ANALYSIS

Laboratory Job Number: L0407966

Parameter	MS %	MSD %	RPD	RPD Limit	MS/MSD Limits
Dissolved Metals by MCP 6000/7000 series for sample(s) 04-07 (L0407964-01, WG176441)					
Arsenic, Dissolved	96	99	3	20	75-125
Iron, Dissolved	60	90	40	20	75-125
Manganese, Dissolved	84	95	12	20	75-125

**ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS**

Laboratory Job Number: L0407966

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 06 (WG176806-1)							
Alkalinity, Total	ND	mg CaCO3/L2.0		30 2320B		0727 13:17	JT
Blank Analysis for sample(s) 06 (WG176724-2)							
Chloride	ND	mg/l	1.0	1 9251		0726 22:29	DD
Blank Analysis for sample(s) 06 (WG176340-2)							
Nitrogen, Nitrate	ND	mg/l	0.10	30 4500NO3-F		0721 22:39	DD
Blank Analysis for sample(s) 06 (WG176788-1)							
Sulfate	ND	mg/l	10.	1 9038		0727 10:00	0727 10:00 ST
Blank Analysis for sample(s) 04-07 (WG176441-1)							
Dissolved Metals by MCP 6000/7000 series							
Arsenic, Dissolved	ND	mg/l	0.0010	54 6020A		0722 14:40	0723 16:41 RW
Iron, Dissolved	ND	mg/l	0.500	54 6020A		0722 14:40	0723 16:41 RW
Manganese, Dissolved	0.0018	mg/l	0.0005	54 6020A		0722 14:40	0723 16:41 RW
Blank Analysis for sample(s) 01-07 (WG176875-3)							
Volatile Organics by MCP 8260B				60 8260B		0727 16:55	RY
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	0.75				
Chloroform	ND	ug/l	0.75				
Carbon tetrachloride	ND	ug/l	0.50				
1,2-Dichloropropane	ND	ug/l	1.8				
Dibromochloromethane	ND	ug/l	0.50				
1,1,2-Trichloroethane	ND	ug/l	0.75				
Tetrachloroethene	ND	ug/l	0.50				
Chlorobenzene	ND	ug/l	0.50				
Trichlorofluoromethane	ND	ug/l	2.5				
1,2-Dichloroethane	ND	ug/l	0.50				
1,1,1-Trichloroethane	ND	ug/l	0.50				
Bromodichloromethane	ND	ug/l	0.50				
trans-1,3-Dichloropropene	ND	ug/l	0.50				
cis-1,3-Dichloropropene	ND	ug/l	0.50				
1,1-Dichloropropene	ND	ug/l	2.5				
Bromoform	ND	ug/l	2.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Benzene	ND	ug/l	0.50				
Toluene	ND	ug/l	0.75				
Ethylbenzene	ND	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
Bromomethane	ND	ug/l	1.0				
Vinyl chloride	ND	ug/l	1.0				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0407966

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-07 (WG176875-3)							
Volatile Organics by MCP 8260B continued				60 8260B		0727 16:55 RY	
Chloroethane	ND	ug/l	1.0				
1,1-Dichloroethene	ND	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	ND	ug/l	0.50				
1,2-Dichlorobenzene	ND	ug/l	2.5				
1,3-Dichlorobenzene	ND	ug/l	2.5				
1,4-Dichlorobenzene	ND	ug/l	2.5				
Methyl tert butyl ether	ND	ug/l	1.0				
p/m-Xylene	ND	ug/l	0.50				
o-Xylene	ND	ug/l	0.50				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dibromomethane	ND	ug/l	5.0				
1,2,3-Trichloropropane	ND	ug/l	5.0				
Styrene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
Acetone	ND	ug/l	5.0				
Carbon disulfide	ND	ug/l	5.0				
2-Butanone	ND	ug/l	5.0				
4-Methyl-2-pentanone	ND	ug/l	5.0				
2-Hexanone	ND	ug/l	5.0				
Bromochloromethane	ND	ug/l	2.5				
Tetrahydrofuran	ND	ug/l	10.				
2,2-Dichloropropane	ND	ug/l	2.5				
1,2-Dibromoethane	ND	ug/l	2.0				
1,3-Dichloropropane	ND	ug/l	2.5				
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50				
Bromobenzene	ND	ug/l	2.5				
n-Butylbenzene	ND	ug/l	0.50				
sec-Butylbenzene	ND	ug/l	0.50				
tert-Butylbenzene	ND	ug/l	2.5				
o-Chlorotoluene	ND	ug/l	2.5				
p-Chlorotoluene	ND	ug/l	2.5				
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5				
Hexachlorobutadiene	ND	ug/l	1.0				
Isopropylbenzene	ND	ug/l	0.50				
p-Isopropyltoluene	ND	ug/l	0.50				
Naphthalene	ND	ug/l	2.5				
n-Propylbenzene	ND	ug/l	0.50				
1,2,3-Trichlorobenzene	ND	ug/l	2.5				
1,2,4-Trichlorobenzene	ND	ug/l	2.5				
1,3,5-Trimethylbenzene	ND	ug/l	2.5				
1,2,4-Trimethylbenzene	ND	ug/l	2.5				
Ethyl ether	ND	ug/l	2.5				
Isopropyl Ether	ND	ug/l	2.0				
Ethyl-Tert-Butyl-Ether	ND	ug/l	2.0				
Tertiary-Amyl Methyl Ether	ND	ug/l	2.0				
1,4-Dioxane	ND	ug/l	250				

ALPHA ANALYTICAL LABORATORIES
 QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0407966

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-07 (WG176875-3)							
Volatile Organics by MCP 8260B continued				60 8260B		0727 16:55	RY
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	108.	%		70-130			
Toluene-d8	100.	%		70-130			
4-Bromofluorobenzene	105.	%		70-130			
Dibromofluoromethane	103.	%		70-130			

**ALPHA ANALYTICAL LABORATORIES
ADDENDUM I**

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.
30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
54. Compendium of Quality Assurance and Quality Control Requirements and Performance Standards for Selected Analytical Methods. MADEP BWSC. Final Methods. May 2003.
60. Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-IIIA (Revision 5). May 2004.

GLOSSARY OF TERMS AND SYMBOLS

REF Reference number in which test method may be found.
METHOD Method number by which analysis was performed.
ID Initials of the analyst.
ND Not detected in comparison to the reported detection limit.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

LIMITATION OF LIABILITIES

Alpha Analytical, Inc. performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical, Inc., shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical, Inc. be held liable for any incidental consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical, Inc.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding times and splitting of samples in the field.

**ALPHA ANALYTICAL LABORATORIES
LOGIN SPECIFIC INFORMATION**

Laboratory Job Number: L0407966

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp	Pres	Seal	Analysis
L0407966-01A	Vial HCl preserved	A	N/A	2.4 C	Y	Absent	MCP-8260-04
L0407966-01B	Vial HCl preserved	A	N/A	2.4 C	Y	Absent	MCP-8260-04
L0407966-02A	Vial HCl preserved	A	N/A	2.4 C	Y	Absent	MCP-8260-04
L0407966-02B	Vial HCl preserved	A	N/A	2.4 C	Y	Absent	MCP-8260-04
L0407966-03A	Vial HCl preserved	A	N/A	2.4 C	Y	Absent	MCP-8260-04
L0407966-03B	Vial HCl preserved	A	N/A	2.4 C	Y	Absent	MCP-8260-04
L0407966-04A	Vial HCl preserved	A	N/A	2.4 C	Y	Absent	MCP-8260-04
L0407966-04B	Vial HCl preserved	A	N/A	2.4 C	Y	Absent	MCP-8260-04
L0407966-04C	Plastic 250ml HNO3 preserved	A	<2	2.4 C	Y	Absent	MCP-AS-6020S
L0407966-05A	Vial HCl preserved	A	N/A	2.4 C	Y	Absent	MCP-8260-04
L0407966-05B	Vial HCl preserved	A	N/A	2.4 C	Y	Absent	MCP-8260-04
L0407966-05C	Plastic 250ml HNO3 preserved	A	<2	2.4 C	Y	Absent	MCP-AS-6020S
L0407966-06A	Vial HCl preserved	A	N/A	2.4 C	Y	Absent	MCP-8260-04
L0407966-06B	Vial HCl preserved	A	N/A	2.4 C	Y	Absent	MCP-8260-04
L0407966-06C	Plastic 250ml HNO3 preserved	A	<2	2.4 C	Y	Absent	MCP-AS-6020S
L0407966-06D	Plastic 250ml HNO3 preserved	A	<2	2.4 C	Y	Absent	MCP-FE-6020S, MCP-MN-6020S
L0407966-06E	Plastic 500ml unpreserved	A	=7	2.4 C	Y	Absent	ALK-T-2320, CL-9251, NO3-4500, SO4-9038
L0407966-07A	Vial HCl preserved	A	N/A	2.4 C	Y	Absent	MCP-8260-04
L0407966-07B	Vial HCl preserved	A	N/A	2.4 C	Y	Absent	MCP-8260-04
L0407966-07C	Plastic 250ml HNO3 preserved	A	<2	2.4 C	Y	Absent	MCP-AS-6020S

Container Comments

Container ID Comments



CHAIN OF CUSTODY

PAGE 1 OF 1

Eight Walkup Drive Westborough, MA 01581
TEL: 508-898-9220 FAX: 508-898-9193

Client Information

Client: EDM Project Name: the Mayhem

Address: 399 Baystate St, BELFL Boston MA 02116 Project Location: Weymouth

Phone: 617 646 7500 Project Manager: J. Record

Fax: 617 267 6447 ALPHA Quote #

Email: Turn-Around Time

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits: * Reim. Filtered using 0.45 micron filter

Project Information

Project Name: the Mayhem

Project Location: Weymouth

Project #: 13616-03-02

Project Manager: J. Record

ALPHA Quote #

Turn-Around Time

Standard RUSH (only confirmed if pre-approved!)

Date Due: 7/28 Time:

Date Rec'd in Lab: 7/21

Report Information - Data Deliverables

FAX EMAIL

INDEX Add'l Deliverables

Regulatory Requirements/Report Limits

State Fed Program Criteria

ALPHA Job #: 20407966

Billing Information

Same as Client info PO #

MCP PRESUMPTIVE CERTAINTY - THESE QUESTIONS MUST BE ANSWERED

Yes No Are MCP Analytical Methods Required?
 Yes No Are Drinking Water Samples Submitted?
 Yes No Have you met minimum field QC requirements?

ANALYSIS
802 / Phenols
diss As *
diss Fe, Mn
NO₃, SO₄, Al, Cl
Diss Methanol, ethanol, ethene

SAMPLE HANDLING
Filtration Done
 Not needed
 Lab to do
Preservation Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials			
		Date	Time					
29666-1	MW-TP3	7-21-04	0520	GW	EM	✓		
2	MW-263M		0910			✓		
3	MW-263S		1010			✓		
4	MW-268B		1155			✓		
5	MW-268S		1350			✓		
6	MW-268M		1450			✓		
7	MW-268D		1605			✓		

QUESTIONS ABOVE MUST BE ANSWERED FOR PRESUMPTIVE CERTAINTY

IS YOUR PROJECT MCP ?

Container Type	Preservative	Date/Time	Received By	Date/Time
V	P	7/21/04 1652	KEO	7/21/04 1711
V	P	7/21/04 1652	KEO	7/21/04 1711
V	P	7/21/04 1652	KEO	7/21/04 1711
V	P	7/21/04 1652	KEO	7/21/04 1711
V	P	7/21/04 1652	KEO	7/21/04 1711
V	P	7/21/04 1652	KEO	7/21/04 1711

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.